ABSTRACT

A NOVEL BIODEGRADABLE LINEAR COPOLYMER, A COMPOSITION
COMPRISING IT, AND USES OF THE COPOLYMER AND
COMPOSITION

The object of the invention is a novel copolymer comprising at least two identical or different monomers, the formula of the monomer being as follows (I):

$$Z_a$$
|
 $Y - (CH_2)_c - C_e - (CH_2)_d - X$
|
 $(COOH)_b$

in which:

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- a) when X and Y are 'identical or different, and represent an acid, alcohol, amine or isocyanate group,
- then at least two monomers have groups able to react together when X and Y are identical, or at least one monomer comprises groups able to react with each other when X and Y are different, and
- at least one of the monomers has the following characteristics:

a ≥ 1

b ≥ 2

 $c + d \ge 0$

e ≥ 1

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and Z can be OH, COOH, an alkyl having 1 to 18 carbon atoms, or any other non-reactive group present during the polymerisation process,

the other monomers being of the same type or of the following formula (II):

$$Y - (CH_2)_n - X \text{ with } n \ge 1$$
 (II)

b) at least one monomer of each type when X and Y are identical or different, as defined above, are combined so that the stoichiometry of the ratio X / Y, calculated so as to obtain a given molar mass and given extremities, permits an elongation of the carbon-containing chain.

The invention also relates to a composition comprising the copolymer and to uses of the copolymer and composition.

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